

Scaled data based on original data using  
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State  
Lighting Products

Test Report Prepared for  
Cooper Lighting Solutions  
(formerly Eaton)

Brand: NEO-RAY

Report Number: P243709

Luminaire Tested: **S125DR-H375D840-X4F0-XX-UDD-D-W**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P243709  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-56)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: S125DR-H375D840-X4F0-XX-UDD-D-W  
Description: DEFINE 5 DIRECT RECESSED WITH SATIN DROP DIFFUSER.  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: (184) 4000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1420.3 lumens  
Efficiency: N/A  
Efficacy: 126.8 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.22 / 1.34  
Luminous Opening: Rectangular w/ Sides (W: 0.39' x L: 3.88' x H: 0.08')  
CIE Type: Direct

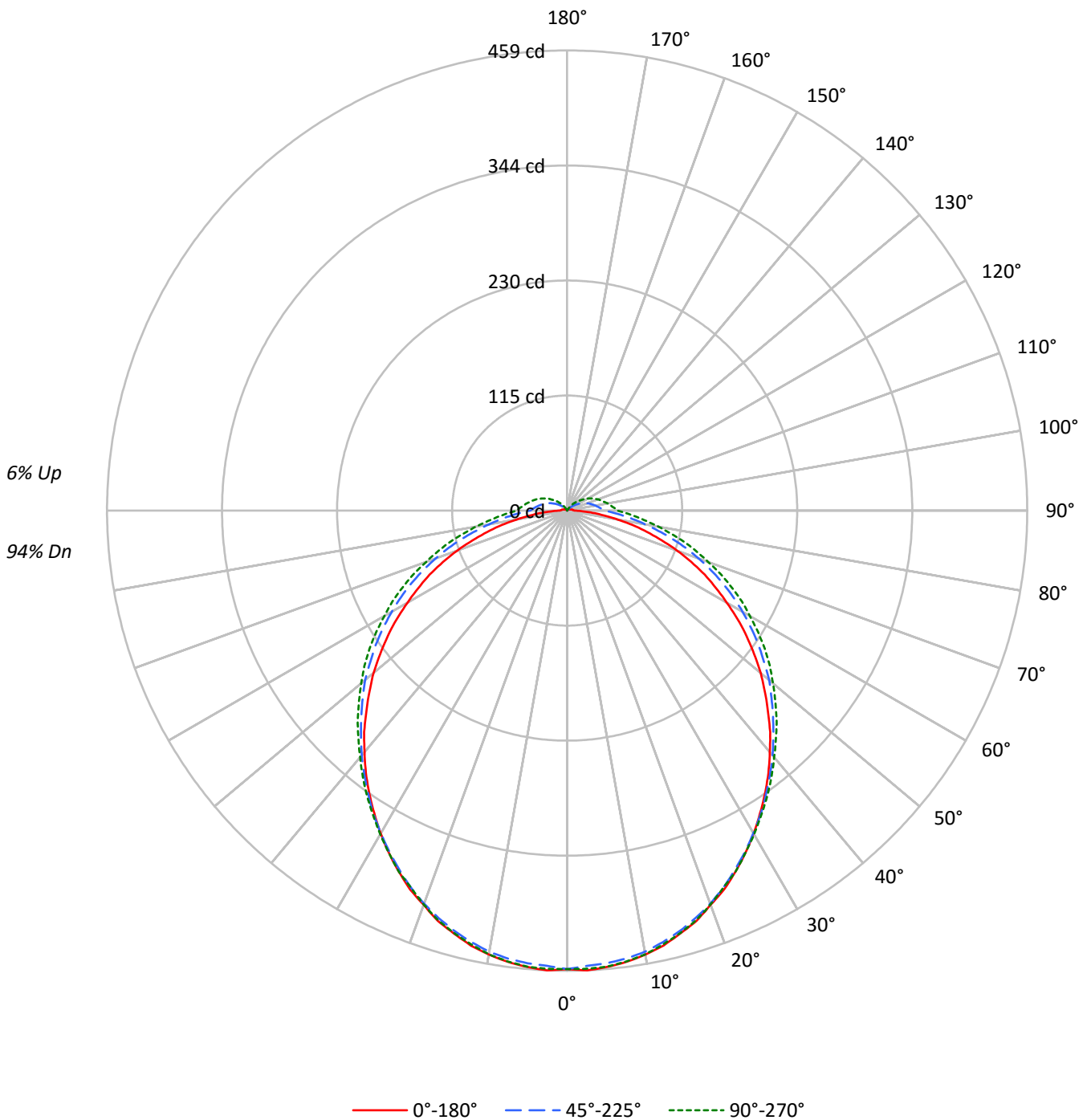
Input Watts (W): 11.2  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20				20				20				20				20	
RC	80				70				50				30				10	0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																		
0	118	118	118	118	114	114	114	114	108	108	108	102	102	102	96	96	96	94
1	106	101	96	92	103	98	94	90	93	89	86	88	85	82	83	81	79	76
2	96	88	80	74	93	85	78	73	81	75	70	76	72	68	72	69	65	63
3	88	77	68	61	84	75	67	60	71	64	59	67	61	57	64	59	55	53
4	80	68	59	52	77	66	58	51	63	55	50	60	53	48	57	51	47	45
5	74	60	51	44	71	59	50	44	56	49	43	53	47	42	51	45	41	39
6	68	54	45	39	66	53	45	38	51	43	38	48	42	37	46	40	36	34
7	63	49	40	34	61	48	40	34	46	39	33	44	37	33	42	36	32	30
8	59	45	36	30	57	44	36	30	42	35	30	40	34	29	39	33	29	27
9	55	41	33	27	53	40	33	27	39	32	27	37	31	26	36	30	26	24
10	51	38	30	25	50	37	30	25	36	29	24	35	28	24	33	28	23	22

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	3251	3251	3251
5°	3254	3187	3198
10°	3234	3134	3126
15°	3195	3059	3037
20°	3141	2976	2935
25°	3086	2880	2835
30°	3016	2783	2725
35°	2941	2688	2626
40°	2866	2596	2529
45°	2788	2503	2448
50°	2717	2428	2363
55°	2628	2333	2285
60°	2520	2231	2185
65°	2432	2123	2088
70°	2290	1991	1962
75°	2095	1835	1849
80°	1868	1668	1708
85°	1663	1559	1625



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	43.3	3.0
10°-20°	123.0	8.7
20°-30°	183.1	12.9
30°-40°	216.9	15.3
40°-50°	224.4	15.8
50°-60°	207.0	14.6
60°-70°	167.2	11.8
70°-80°	111.8	7.9
80°-90°	57.7	4.1
90°-100°	32.3	2.3
100°-110°	24.0	1.7
110°-120°	16.0	1.1
120°-130°	8.9	0.6
130°-140°	4.0	0.3
140°-150°	0.8	0.1
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	349.3	24.6
0°-40°	566.2	39.9
0°-60°	997.5	70.2
0°-90°	1334.2	93.9
90°-120°	72.3	5.1
90°-150°	86.1	6.1
90°-180°	86.0	6.1
0°-180°	1420.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	457	457	457	457	457	
5°	457	457	453	457	457	43
15°	437	438	434	437	436	123
25°	397	399	396	398	397	183
35°	344	347	346	348	348	215
45°	283	288	290	295	296	219
55°	219	225	233	238	241	195
65°	151	160	171	179	181	149
75°	82	95	108	118	121	88
85°	25	40	55	65	68	26
90°	7	21	37	47	50	5
95°	6	18	33	42	45	5
105°	4	11	25	34	37	4
115°	3	6	17	25	28	3
125°	2	2	10	16	19	2
135°	1	1	4	10	11	1
145°	0	0	0	2	4	0
155°	0	0	0	0	0	0
165°	0	0	0	0	0	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	0



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	457.4	457.4	457.4	457.4	457.4
2.5°	459.1	457.9	454.5	457.9	457.4
5°	457.0	456.6	453.2	456.6	456.6
7.5°	454.0	453.6	450.7	454.0	453.6
10°	449.8	449.8	446.9	449.4	449.4
12.5°	444.3	444.3	440.9	443.9	443.1
15°	436.7	438.0	434.2	436.7	436.3
17.5°	429.1	429.1	426.1	428.3	428.3
20°	418.5	420.2	417.3	419.4	418.1
22.5°	409.2	410.1	407.1	409.2	407.1
25°	397.4	399.1	395.7	397.8	397.4
27.5°	385.1	386.4	383.9	386.4	385.1
30°	372.0	373.3	371.6	373.3	372.9
32.5°	358.1	360.6	359.3	360.6	360.2
35°	344.1	346.7	345.8	347.5	347.9
37.5°	329.8	332.3	332.3	334.4	334.8
40°	314.5	317.9	318.8	321.7	321.3
42.5°	299.7	303.1	304.4	308.2	308.2
45°	283.3	287.9	290.4	295.1	295.5
47.5°	267.6	272.7	276.5	280.7	281.6
50°	252.0	256.6	263.0	267.2	268.0
52.5°	235.1	241.0	247.3	253.2	254.9
55°	218.6	225.3	232.9	238.4	240.6
57.5°	201.7	208.8	217.3	224.1	225.8
60°	183.9	192.4	202.1	208.8	210.5
62.5°	167.4	176.7	186.9	194.0	196.6
65°	151.3	160.2	171.2	178.8	180.9
67.5°	134.0	143.7	155.2	163.6	165.7
70°	116.7	127.3	139.5	147.5	149.7
72.5°	98.9	110.8	123.9	132.7	135.3
75°	82.4	94.7	108.2	117.5	120.9
77.5°	66.8	79.5	93.0	102.7	105.7
80°	51.2	64.3	79.1	89.2	92.2
82.5°	37.2	51.2	66.4	76.5	79.5
85°	25.4	39.7	55.4	65.1	68.5
87.5°	15.6	29.6	45.7	55.4	58.8
90°	7.2	21.1	36.8	46.9	50.3
92.5°	6.3	19.4	34.7	44.8	47.8
95°	5.9	17.8	32.6	42.3	45.2
97.5°	5.5	16.1	30.4	40.2	43.1
100°	5.1	14.4	28.7	38.0	41.0
102.5°	4.7	13.1	26.6	35.9	38.5
105°	4.2	11.4	24.9	33.8	36.8
107.5°	3.8	9.7	23.3	31.7	34.7
110°	3.4	8.5	21.1	29.6	32.6



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	3.0	7.2	19.4	27.5	30.4
115°	3.0	5.9	17.3	25.4	28.3
117.5°	2.5	4.7	15.2	23.3	26.2
120°	2.1	3.4	13.5	21.1	24.1
122.5°	2.1	2.5	11.8	19.0	22.0
125°	1.7	1.7	10.1	16.5	19.4
127.5°	1.7	1.3	8.5	14.8	16.9
130°	1.3	0.8	7.2	13.1	15.2
132.5°	1.3	0.8	5.5	11.4	13.5
135°	0.8	0.8	3.8	9.7	11.4
137.5°	0.8	0.4	2.5	7.6	9.7
140°	0.4	0.4	0.8	5.9	7.6
142.5°	0.4	0.4	0.4	4.2	5.9
145°	0.4	0.0	0.0	2.5	3.8
147.5°	0.4	0.0	0.0	0.8	2.1
150°	0.0	0.0	0.0	0.0	0.4
152.5°	0.0	0.0	0.0	0.0	0.0
155°	0.0	0.0	0.0	0.0	0.0
157.5°	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0
162.5°	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0
167.5°	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)